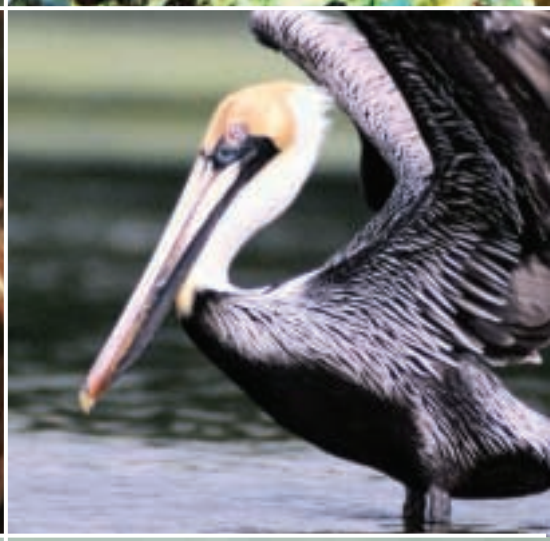











Integrated Natural Resources Management Plans Make Critical Habitat Designations Unnecessary

Achieving MILITARY READINESS & SPECIES PROTECTION with INRMPS

Bald Eagle, Humpback Whale, Green Sea Turtle, Swamp Pink (Asheville Field Office/USFWS), Hawaiian Moorhen (John and Karen Hollingsworth/USFWS), Desert Tortoise (Beth Jackson/USFWS), Brown Pelican, Eastern Indigo Snake (Dr. Dan W. Speake/USFWS), Hawaiian Monk Seal (James Leupold/USFWS).

As part of the Range and Readiness Preservation Initiative (RRPI), the Department of Defense (DoD) has proposed to amend the law to permit the armed services to manage threatened and endangered species effectively, while at the same time ensuring that military training and operational needs can be met. In a nutshell, the amendment would allow Integrated Natural Resources Management Plans (INRMPs) to be utilized for managing threatened and endangered species on Navy lands without the need for future critical habitat designations. This change will not "roll back" existing critical habitat designations on Navy installations, nor will it alter requirements for the Navy to consult with the U.S. Fish and Wildlife Service (USFWS) on actions that may affect "at risk" species under the Endangered Species Act. To understand the change and the reasoning for why it will be effective, it is useful to take a brief look at the legal drivers, the nature of INRMPs, and the meaning and effects of critical habitat designation.

Environmental Stewardship

The Navy and Marine Corps have the responsibility to protect threatened and endangered species and other natural resources on and around training ranges and bases. Legal drivers such as Section 7 of the Endangered Species Act (ESA), often requires the military services to consult with the USFWS on actions that may affect threatened and endangered species. The Sikes Act requires that the military services develop INRMPs to manage species and habitat on bases in coordination with the USFWS and state agencies.

The Training Requirement

At the same time, Title 10 of the U.S. Code directs the U.S. Navy and Marine Corps to be "organized, trained, and equipped primarily for prompt and sustained combat incident to operations at sea." Essentially, the law requires that the sea services train and otherwise prepare for their primary mission of national security. In support of this mission, the Navy and Marine Corps established training ranges at bases and other operational areas to give sailors and Marines the opportunity to hone their skills in realistic training environments prior to engaging in real, life-threatening combat operations. Realistic training is vital—without it, sailors and Marines are at far greater risk of harm in combat, and U.S. military forces as a whole may be less effective in accomplishing national security missions.

A Balance

Thus, with Title 10 and environmental laws exerting influence, the Navy and Marine Corps must walk a careful line that will offer sailors and Marines the best chance of survival and victory by allowing them to train as they will fight, but also ensure that threatened and endangered species dwelling on Navy/Marine Corps installations and training areas survive and flourish. The Navy and Marine Corps are committed to both priorities, presently protecting over 180 threatened and endangered species on Navy/Marine Corps installa-

GREEN SEA TURTLE
(Chelonia mydas)

Federal Status: Threatened

Installation(s): Naval Submarine Base (SUBASE) Kings Bay; Commander, Naval Activities Marianas; Naval Station Pearl Harbor; Pacific Missile Range Facility (PMRF) Barking Sands

Critical Habitat designated? Yes (SUBASE Kings Bay, PMRF Barking Sands)

Protective Measures: Naval Submarine Base (SUBASE) Kings Bay affords protection to green sea turtles by prohibiting public boating, restricting wake zones and requiring propeller guards on all watercraft. While conducting surveys along the SUBASE Kings Bay waterfront, the Georgia Department of Natural Resources recently discovered immature green sea turtles foraging on marine flora on riprap. The waterfront has since served as a nursery where immature turtles have been afforded protection from the open sea. Due to sport and commercial fishing restrictions, there are also no fishing nets in this area.

Commander, Naval Activities Marianas, in coordination with the Government of Guam's Division of Aquatic and Wildlife Resources and the U.S. Fish and Wildlife Service, is participating in a study to track the migration of the green sea turtle and the hawksbill sea turtle. The turtles' shells are fitted with satellite transmitters, allowing scientists to track migration patterns.

Photo: David Vogel/U.S. Fish and Wildlife Service

tions worldwide while performing their primary mission of national security.

The Endangered Species Act

The ESA (16 U.S.C. 1531-1544, 87 Stat. 884) is Federal legislation intended to conserve and recover listed threatened and endangered species. ESA provides programs for the conservation of those species, thereby preventing the extinction of plants and animals. Though the overall framework of the ESA has remained essentially unchanged, significant amendments were enacted in 1978, 1982, and 1988. The 1978 ESA amendments introduced the designation of critical habitats for species protection. "Critical habitat" is defined as those areas necessary for the species' survival or propagation and require special management consideration and protection. According to the 1978 amendments, the USFWS was required to designate critical habitat concurrently with the listing of a species when prudent. Economic and other impacts of designation were required to be considered in deciding on the boundaries of that habitat. One of the requirements in the Act's Section 7 language is that Federal agencies must consult with the USFWS to ensure that their actions do not jeopardize listed species or destroy or adversely modify critical habitat. As of 16 May 2003, critical habitat has been designated for 426 of the 1,263 U.S. species listed as threatened or endangered.

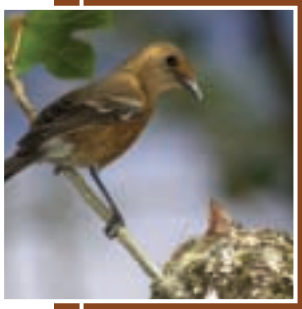
What are INRMPs?

Integrated Natural Resources Management Plans (INRMPs) are important planning documents that Navy installations carefully execute. Installation-based natural resource managers and their staffs have managed the daily operation of the Navy's natural resource programs for over half a century. In fact, all military installations having land and water

INRMP BASICS

INRMPs, established by the Sikes Act Improvement Act (SAIA) of 1997, require an integrated look at natural resources—a complete, ecosystem-based approach. Consistent with the use of military installations to ensure preparedness of the U.S. military, INRMPs provide for:

- Fish and wildlife management, land management, forest management, and fish-and-wildlife-oriented recreation,
- Fish and wildlife habitat enhancement or modifications,
- Wetland protection, enhancement, and restoration where necessary for support of fish, wildlife or plants,
- Establishment of specific natural resource management goals and objectives, with milestones for meeting them,
- Sustainable use by the public of natural resources to the extent that the use is not inconsistent with the needs of fish and wildlife resources subject to requirements necessary to ensure safety and military security,
- Enforcement of natural resource laws and regulations,
- No net loss in the capability of the military installation lands to support the military mission of the installation, and
- Other activities the Secretary of the military department determines appropriate.



TINIAN MONARCH

(Monarcha takatsukasae)

Federal Status: Threatened

Installation(s): Commander, Naval Activities Marianas

Critical Habitat designated? No

Protective Measures: By removing cattle and replanting trees, the Navy downlisted this bird's status from endangered to threatened. Today it has a population of over 57,000 and has been proposed for full delisting.

The Navy and Marine Corps must offer sailors and Marines the best chance of survival and victory by allowing them to train as they will fight and ensure that threatened and endangered species survive and flourish.

suitable for conserving and managing natural resources develop and implement INRMPs.

Natural resources managers from each installation prepare and implement a comprehensive INRMP in cooperation with the USFWS and the appropriate State Fish and Game agency, in compliance with the Sikes Act Improvement Act. The Navy and the other Services use these detailed documents as principal management tools to coordinate military readiness and natural resources management actions. Balancing the often competing demands of protecting natural resources and the military mission is a huge task, but one that the Navy is aggressively taking on. INRMPs, prepared by the Navy's natural resource managers, provide the foundation upon which the Navy protects and manages the ecosystems on its lands. These plans are rewritten every five years. For more information about the Navy's extensive natural resources program, see the Fall 2001 issue of Currents (page 27).

Critical Habitat Designations and the Challenge They Create

Critical habitat, according to the ESA, is a specific geographic area essential for the conservation of a threatened or endangered species that may require special management considerations or protection. Critical habitat is to be designated "concurrently with" the determination that a species is threatened or endangered.

> Critical habitat designations unnecessarily limit an installation commander's ability to accommodate both the military mission and natural resources stewardship.

Once critical habitat is designated, the Navy must "consult" with the appropriate regulatory agency, such as the USFWS, to ensure that Navy actions will not likely result in the destruction or adverse modification of critical habitat. In other words, the Navy must consult with another agency about Navy activities on Navy land.

Before designating an area as critical habitat, USFWS biologists consider the physical and biological habitat features needed for life and successful reproduction of the species. These considerations include the following:

SWAMP PINK
(Helonius bullata)

Federal Status: Threatened

Installation(s): Naval Weapons Station Earle

Critical Habitat designated? No

Protective Measures: Swamp Pink is found in wetland cover types such as deciduous headwater swamps, stream corridors, red maple swamps, and Atlantic white cedar swamps. Natural resource management projects are being planned to minimize impacts to wetland areas that have been known to support swamp pink populations.

Photo: Asheville Field Office/U.S. Fish and Wildlife Service

& CRITICAL HABITATS THE USFWS

After a Congressional moratorium on listing new species ended in 1996, the USFWS faced a substantial backlog of species that needed to be reviewed for listing as threatened or endangered. For this reason, the USFWS has assigned a relatively low priority to designating critical habitat. According to the USFWS's own literature (*Critical Habitat: What Is It?* [February 2002]), a more effective use of its limited staff and funding has been to place imperiled species on the List of Endangered and Threatened Species. Additionally, the USFWS stated in a 1999 Notice of Proposed Rulemaking and elsewhere that "the critical habitat designation usually affords little extra protection to most species yet it consumes large amounts of conservation resources. We have long believed that separate protection of critical habitat is duplicative for most species." Nonetheless, the USFWS has been inundated with citizen lawsuits challenging its failure to designate critical habitat.

- Space for individual and population growth and for normal behavior;
- Cover or shelter;
- Food, water, air, light, minerals, or other nutritional or physiological requirements;
- Sites for breeding and rearing offspring; and
- Habitats protected from disturbances or representative of historically geographical and ecological distributions of a species.

Interestingly enough, these same factors are considered by the Navy when preparing INRMPs.

Designations Where No Species Exist

The ESA provides that critical habitat may be designated on areas outside the area occupied by the species. In addition to designating critical habitats for species that exist on Navy lands, the USFWS recently proposed designating critical habitat on several installations in Guam for endangered species that do not reside on Navy lands. The USFWS also recently designated similar unoccupied critical habitat at a Navy installation in Hawaii. These proposed designations in Guam and Hawaii threaten to shift the core mission at these facilities from military readiness to environmental protection. Installations on Guam and Hawaii include the Naval Computer and Telecommunications Annex (proposed designation) and Naval Ordnance Annex (proposed designation) and the Pacific Missile Range Facility (PMRF) (final critical habitat designation). Each of these installations has an approved INRMP for managing all the natural resources within their boundaries.

On Guam, critical habitat has been proposed for the Mariana Crow, Micronesian Kingfisher, and the Mariana Fruit Bat, and would affect areas the Navy now uses as magazines for forward-deployed ordnance storage, jungle training areas, and low-level aviation training. None of these species live on Navy lands under consideration.

In Hawaii, critical habitat was designated on 27 February 2003 for Panicum niihauense (an endangered grass species) at PMRF, a long, narrow strip of land on Kauai that is crucial to testing and evaluating weapons. This designation could inhibit PMRF's broad range of training and testing support, including amphibious landings and Missile Defense Agency efforts to achieve an operational ballistic missile defense capability. The Navy formally objected to this designation, noting that the designation of any such lands would have a negative impact on its flexibility and the National security missions conducted there. Panicum niihauense inhabits no Navy-controlled land. Plus, PMRF has an approved INRMP, reviewed and agreed to by the USFWS.

WEST INDIAN MANATEE
(Trichechus manatus)

Federal Status: Endangered

Installation(s): Fleet and Industrial Supply Center Jacksonville, Naval Air Station Jacksonville, Naval Station Mayport, Naval Submarine Base Kings Bay, Naval Weapons Station Charleston, Naval Station Roosevelt Roads

Critical Habitat designated? Yes (all but Naval Weapons Station Charleston)

Protective Measures: The Navy's manatee protection program, which is endorsed by the U.S. Fish and Wildlife Service as a model program, requires manatee guards on ships craft operating in several key manatee habitat areas. The Navy also works with state wildlife agencies to radio tag and track manatees for research purposes.

Photo: Gaylen Rathburn/U.S. Fish and Wildlife Service

GOLDEN PAINTBRUSH
(Castilleja levisecta)

Federal Status: Threatened

Installation(s): Naval Air Station (NAS) Whidbey Island

Critical Habitat designated? No

Protective Measures: NAS Whidbey Island removed brush and mowed areas outside of the existing population to enhance habitat quality and foster population recovery.

To avoid the proposed critical habitat designations at Guam and Hawaii, the Navy agreed to revise its existing INRMPs to reaffirm its responsibility to manage endangered species should they be found on Navy lands. If these species appear naturally on Navy lands in the future, the Navy will afford them the protections required by law and associated regulations.

Navy Stewardship Very Effective Without Critical Habitat Designations

Navy natural resources stewardship is effective, even without critical habitat designations. At San Clemente Island (SCI), for example, no critical habitat has been designated for the endangered SCI loggerhead shrike. The Navy has conducted a highly successful shrike program directed at predator control; survey and monitoring; and captive population breeding in cooperation with the Point Reyes Bird Observatory, Zoological Society of San Diego, Institute for Wildlife Studies, USFWS, and California Department of Fish and Game. As a result, the shrike population has grown from 13 total birds in the wild to over 190 birds in the wild and in a captive breeding population. And at Naval Base Coronado, where critical habitat has not been designated for the California least tern but has been designated for the Western snowy plover, both birds under Navy stewardship are thriving. The numbers of California least terns that nested on the beaches at Naval Base Coronado in 2002 was 825, a huge increase from 187 nests in 1993. The number of Western snowy plover nests on the beach in 2002 was 99, a 14-fold increase from seven nests in 1993. At Naval Base Coronado, the Navy conducts predator management during breeding season, restricts access to the beaches, and has implemented a comprehensive biological monitoring program that includes providing weekly reports to the USFWS.

Navy INRMPs are fully protective of endangered species and the entire ecosystem. Critical habitat designation in areas covered by an INRMP would essentially be redundant and unnecessary. Overlaid on lands managed with existing and approved INRMPs, critical habitat designations unnecessarily limit an installation commander's ability to accommodate both the military mission and natural resources stewardship. An approved INRMP makes

GOPHER TORTOISE
(Gopherus polyphemus)

Federal Status: Threatened

Installation(s): Naval Air Station Whiting Field, Naval Air Station Pensacola, Naval Submarine Base Kings Bay

Critical Habitat designated? No

Protective Measures: When operational activities have the potential to impact the gopher tortoises' burrows, the burrows are flagged and personnel are required to avoid them.

DESERT TORTOISE
(Gopherus agassizii)

Federal Status: Threatened

Installation(s): Naval Air Warfare Center Weapons Division China Lake

Critical Habitat designated? Yes

Protective Measures: Naval Air Warfare Center Weapons Division (NAWC-WD) China Lake, which is situated on the northwest corner of the Mojave Desert, wrote and implemented a programmatic Habitat Management Plan (HMP) based on the U.S. Fish and Wildlife Service's (USFWS) Biological Opinion of "No Jeopardy." Approved in the early 1990s, the HMP helped shape NAWC-WD China Lake's INRMP for the desert tortoise.

Extensive field surveys helped establish tortoise population densities on NAWC-WD China Lake, allowing the installation to design its INRMP to accommodate its ongoing military mission operations and provide an effective conservation and protection program for desert tortoise habitat. USFWS signed off on the INRMP in September of 2000.

NAWC-WD China Lake's Desert Tortoise Habitat Management Plan designated approximately 200,000 acres of the installation's South Range as a management area for the desert tortoise. Adding to the programs outlined in the HMP, NAWC-WD China Lake implemented other beneficial actions including the removal of grazing sheep and the fencing off of installation land that lay contiguous with other public lands.

Photo: Beth Jackson/U.S. Fish and Wildlife Service

the USFWS designation of critical habitats on DoD lands unnecessary by protecting Federally listed threatened and endangered species and their associated habitats under a single, comprehensive ecosystem management plan for all natural resources. INRMPs provide for the following:

- **Provide the Special Management Considerations and Protections Required by the ESA.** These special management considerations and protections obviate the requirement for critical habitat designations on military lands for which INRMPs have been approved.
- **Help Installation Commanders to Better Manage Natural Resources and Ensure that Mission Requirements Can Be Met.** By employing INRMPs without critical habitat designations, the Navy retains its decision-making authority over Navy lands, enabling installation commanders and their natural resource staffs to plan the requisite training and testing missions in concert with stewardship and resource management responsibilities, including the protection of threatened and endangered species. Critical habitat designations, by requiring USFWS consultations, restrict this mobility and flexibility that the Navy's natural resource managers need. Consultations could result in mitigation measures that adversely affect realistic military training and other operations.
- **Offer Comparable or Better Protection for Endangered Species than Critical Habitat Designations.** Because they consider the installation's entire ecosystem, rather than using a species-by-species approach, INRMPs offer comparable or better protection for endangered species than critical habitat designations. Designation of critical habitat tries to meet the

The critical habitat designation usually affords little extra protection to most species yet it consumes large amounts of conservation resources. The USFWS has long believed that separate protection of critical habitat is duplicative for most species.

General Statistics for
ENDANGERED SPECIES IN THE UNITED STATES

- Number of species of animals listed as threatened and endangered: **517**
- Number of species of plants listed as threatened and endangered: **746**
- Number of species of animals currently proposed for listing as threatened and endangered: **28**
- Number of species of plants currently proposed for listing as threatened and endangered: **4**
- Number of listed species with critical habitat: **426**
- Number of animal candidate species (species of concern): **113**
- Number of plant candidate species (species of concern): **136**

*(**Source:** U.S. Fish and Wildlife Service [data current as of 9 May 2003])*

SAN DIEGO FAIRY SHRIMP
(Branchinecta sandiegonensis)

Federal Status: Endangered

Installation(s): Naval Base (NB) Coronado, Naval Network and Space Operations Command (NNSOC), Naval Radio Receiving Facility, Marine Corps Base Camp Pendleton, Marine Corps Air Station Miramar

Critical Habitat designated? Yes (at NB Coronado and NNSOC)

Protective Measures: Navy/Marine Corps installations avoid the species' habitat areas (vernal pools) during training and other military exercises.

Photo: Coralie Cobb

needs of a single species, occasionally to the exclusion of the needs of other species and resources. In fact, it is possible that critical habitat designation for one species might be at odds with an overlapping designation for another. INRMPs, on the other hand, allow natural resource managers to apply an ecosystem management approach and to build a holistic plan to better account for the needs of a wide range of species and resources. In some instances, DOD operates under INRMPs and critical habitat designations where critical habitat has already been declared on military lands. INRMPs provide a broad, holistic perspective for installations through a comprehensive ecosystem management plan for all natural resources. And the five-year INRMP review process gives the Navy and the USFWS a continuing opportunity to modify them.

INRMPs provide the flexibility necessary for military readiness and the stewardship and protection of Federally listed threatened and endangered species without the need for critical habitat designation.

- Place Responsibility on Installation Commanders. Like other components of the Navy's environmental compliance management program, the installation commander is responsible for completing the INRMP. History has proven this arrangement to be an effective tool for ensuring the Navy's overall compliance with environmental (including natural resources) regulatory requirements.
- Showcase Natural Resource Managers' Stewardship. By using INRMPs developed by the managers and staff most familiar with the installation's natural resources, habitat, and associated challenges (as the Navy has for more than 50 years), these integrated plans can better ensure the continued success of the Navy's environmental stewardship efforts.

Endangered-Species Management: EFFECTS ON MILITARY READINESS

Two military installations in California (one Marine Corps, one Navy) illustrate how operations have been seriously restricted by the presence of endangered species on Navy lands—Marine Corps Base Camp Pendleton and San Clemente Island.

Marine Corps Base Camp Pendleton

Camp Pendleton faces many training limitations as a result of ESA restrictions. Amphibious landing craft are required to land at Pendleton's Red Beach training area in single file and drive directly to a hard-surfaced road when transiting to and from the beach. This is tactically unrealistic and impacts both ship-to-shore movement training and maneuver after coming ashore. Standard line abreast (side-by-side) formation—to prevent the enemy from concentrating fire on a specific beach location during an amphibious assault—has been dropped to mitigate potential disruption to endangered birds and their nests on the beach. Beach masters, responsible for the complicated logistics flow and coordination of movement and prioritization of simultaneously arriving units, receive no realistic training in a high-density traffic environment. Their role has been reduced to administrative movement of units during non-combat conditions, despite the fact that they may have to control complex logistics flow under the stress of combat.

While Camp Pendleton has 17 miles of beach, environmental restrictions and encroachment from other sources, including Interstate 5 that runs parallel to the beach, mean Marine Corps combat vehicles now have only 1,500 meters to practice amphibious landings and movement from the beach. Even within this 1,500-meter beach, all military vehicles are restricted to designated roads. Digging and earth moving are constrained to very limited areas.

For more insights into Camp Pendleton's endangered species management challenges, please turn to our spotlight interview with Stan Norquist, Director of Camp Pendleton's Natural Resources Department, on page 16 of this issue of Currents magazine.

San Clemente Island (SCI)

Because of its success at loggerhead shrike recovery and successful natural resources management program on this island, the Navy was able to restart consultation with the USFWS on the Biological Opinion for "Naval Training Activities that Cause Fires on San Clemente Island." The

new Biological Opinion signed in July 2002 relaxed restrictions that have impacted Navy training in the past at San Clemente Island (SCI). SCI remains a critically important training asset and, among other uses, is the only location between the U.S. West Coast and the Hawaiian Islands where ships and aircraft preparing for deployment can combine realistic, live-fire strike warfare and naval gunfire training. Despite the Navy's successful loggerhead shrike program and the revised biological opinion, the following problems remain at SCI:

- **SEALs Use Simulated Ammunition.** SEALs resort to using blanks, paint balls, laser tag and other simulated ammunition. These alternatives have limited training value and fail to produce the stress effect and realism of live fire essential for SEAL survival in combat.
- **Prohibitions on Some Munitions.** The 2002 Biological Opinion eased prior fire season prohibitions on the use of illumination, white phosphorous, and tracer rounds. Under certain operational and environmental conditions, these munitions may now be used during fire season. However, the biological opinion prohibits the use of incendiary devices unless on-site aerial firefighting resources are present. Therefore, these munitions may only be used within two (2) hours of sunrise to allow safe operation of the firefighting helicopter. Although flexibility for year-round use is now available, this condition imposes the loss of nearly eight (8) hours of valuable training time over an approximate six-month season. Additionally, these munitions may not be used during fire season when wind speed exceeds 13 knots. While incendiaries may now be used, according to the revised Biological Opinion if fires "burn outside of impact areas…the Navy shall re-institute current restrictions on ordnance use and impact areas size…" This would cause the loss of all follow-on Naval Surface Fire Support training for the rest of the fire season. Time is not available to make up the training as battle groups deploy on a schedule independent from fire season.
- **Scheduling of Range Use.** To implement the reasonable and prudent measures required in the 2002 Biological Opinion, natural resources personnel must conduct regular monitoring and related activities during the five- to six-month shrike breeding season. These activities require access to the range for four days per week for biologists, leaving only three days per week for training. Although the Navy has enhanced its ability to respond to Fleet needs, the island's predominant use for about half of the year remains biological management, rather than training and preparing Navy personnel for deployment and operational readiness.

INRMPs provide the flexibility necessary for military readiness and the stewardship and protection of Federally listed threatened and endangered species without the need for critical habitat designation. The Navy and Marine Corps need this flexibility to make sure a balance is achieved, allowing the military to perform necessary national security missions while protecting species and their habitats. Because INRMPs provide broader, ecosystem-based environmental and natural habitat management than single-species oriented critical habitat management can, the Navy and Marine Corps believe this ecosystem approach is much more beneficial to species and habitat conservation.

Conclusion

Committed to conserving the natural resources on its lands and supporting stewardship efforts for all listed species and the ecosystems on which they depend, the Navy and Marine Corps have repeatedly demonstrated their ability to implement successful conservation programs that accommodate both military readiness requirements and endangered species recovery. This practical management approach makes critical habitat designations unnecessary. Experienced Navy and Marine Corps natural resource managers, equipped with carefully developed and approved INRMPs, already manage many of these threatened and endangered species through conservation stewardship that ultimately contributes to species recovery. ⚓

Sources: *Background information contained in this article including the evolution of the Endangered Species Act (ESA) and the discussion of critical habitat designations was largely extracted from the USFWS's Web site at www.fws.gov and http://endangered.fws.gov.*

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